AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) ~~A method for supporting multiple simultaneous concurrent tasks within a single web-console in a central controlled distributed scalable virtual machine ("CCDSMV") environment, said method comprising:~~

. A method for supporting multiple simultaneous concurrent tasks within a single web-console in a central controlled distributed scalable virtual machine ("CCDSMV") environment, said method comprising

(a) a user login in from a web-console of a console host to said CCDSMV environment;

(b) said user from said web-console of said console host obtaining all information of the target systems within said CCDSVM environment;

(c) ~~said user from said web-console of said console host selecting a target system and initiating tasks based on said all information of said CCDSVM environment;~~

said user from said web-console on said console host can select any target system and initiate multiple concurrent tasks on targeted system based on said all obtained information of said CCDSVM environment;

(d) console supporting software on a control management station getting and storing said tasks into a user space task list, and obtaining associate locks for each tasks; and

(e) ~~console supporting software distributing multiple tasks to multiple systems until all of said tasks are performed.~~

console supporting software arranging and distributing said tasks to be run on the said targeted systems until all of said tasks are performed.

2. (Previously Presented) The method of claim 1, wherein step (a) further includes:

said web-console of said console host getting a login web-page from said console supporting software of said control management station; and

said user providing an account name and a password information to said login web-page on said web-console of said console host; and

said web-console of said console host sending the authentication information to said console supporting software of said control management station.

3. (Currently Amended) The method of claim 1, wherein step (a) further includes said console supporting software of said control management station ~~performing~~ performs ~~an~~ authentication validation checking, wherein said authentication validation checking further includes determining whether a user is allowed to login.

4. (Currently Amended) ~~The method of claim 1, wherein, step (a) further includes multiple users could login in said console host through multiple web consoles of multiple different console hosts concurrently.~~ The method of claim 1, wherein, step (a) further includes multiple users could concurrently login to said CCDSVM environment from each user's web console of each user's console hosts on the network.

5. (Currently Amended) The method of claim 1, wherein, step (b) further includes:

said console supporting software of said control management station receiving necessary information from service software modules of all system units via communication link between them; and

said console supporting software of said control management station sending information of all said system units and said control management station ~~and others~~ to each said web-console of said console host;

if there is no any system units in CCDSVM, said console supporting software of said control management station sending information of said control management station to each said web-console of said console host.

6. (Currently Amended) The method of claim 1, wherein, step (b) further includes obtaining information relating to ~~the IP address of each unit~~ IP address of each system, devices on a system, files, and all other resources and configuration of each system unit

and control management station within said CCDSVM~~, and initiating tasks in said CCDSVM environment in response to said information~~.

7. (Currently Amended) The method of claim 1, wherein, step (c) further includes:

14. ~~initiating~~ said a user can initiate multiple simultaneous concurrent tasks for a target system or for several different target systems from a single web-console of a console host ~~in response to~~ based on information obtained by said console support software; and ~~sending~~ submitting task information from said web-console of console host to said console support software modules of said control management station; and

the said tasks could be any of bellow:

move or transmit data such as a multiple Gig-bytes data file or other data in any form from any point or any system to another point or system within CCDSVM;

configure, partition, and assign entire storage system (raid/disk) within CCDSVM; setup authentication of specific user from a specific web-console with certain privilege for entire CCDSVM or for one or several systems, which could be any system unit or control management station;

setup authentication for services of CCDSVM to provide to clients;

monitor and display network, storage, CPU, processes and threads activities and status for entire CCDSVM;

create and mount file system, file and directory structures, and performing all related data file operations on either control management system or system units; and all other kind of system tasks, such as read permitted documentation files, that can be performed on regular native computer user work (operating) environment.

8. (Currently Amended) The method of claims 1, wherein, step (c) further includes:

based on information obtained from said console support software of said control management station, multiple users on multiple console hosts, each of them from a single web-console of multiple console hosts, initiating multiple simultaneous concurrent tasks for a target system or for several target systems; and

task information is ~~send~~ sent from said web-console of console host to said console support software modules of said control management station.

9. (Currently Amended) The method of claim 1, wherein, step (d) further includes:

said console supporting software of said control management station getting task information from said web-console of said console hosts;

said console supporting software of control management station storing information of each task ~~at a giving~~ one at a time into a valid slot of a user space task list;

said console supporting software of control management station acquiring associated locks to protect resources used by each task and further to prevent each task from interfering each other or from blocking each other; and

said console support software of control management station provides user at web-browser to not wait for result of said task.

10. (Currently Amended) The method of claim 1, wherein, step (d) further includes:

said locks acquired for each task being conventional or non-conventional lock

said conventional lock acquired and released by same thread; and

said non-conventional lock acquired by ~~a first~~ one thread and be released by a another ~~second~~ thread.

11. (Currently Amended) The method of claim 1, wherein step (e) further includes based on task information, said console support software of said control management station ~~determining which target system is selected to perform the task.~~. determines the task to be executed on which targeted system.

12. (Currently Amended) The method of claim 1, wherein step (e) further includes ~~transmitting task information from said console support software of control management system to the service software module of the target systems~~ if the target of a task is for a system unit, the console support software of control management station transmits the task information to the service software module of the targeted system unit and said task to be performed on the targeted system unit; if the target of a task is for control management station, said task will be performed on control management station.

13. (Currently Amended) The method of claim 1, wherein step (e) further includes said console support software of said control management station or the service software module of system unit ~~determining~~ determines whether an additional threads ~~is~~ is required to perform the tasks; if there is need, an additional threads is created to perform the task; otherwise, the threads of the console support software modules of control management station, or the threads of service software modules of system unit performs the task.

14. (Currently Amended) The method of claim 1, wherein, step (e) further includes said console supporting software ~~determining~~ determines whether a task is permitted to run by said user and on a specific system identified by said user, and determines whether said task is permitted to run on said specific system;

15. (Currently Amended) The method of claim 1, wherein, step (d) and step (e) also includes said associated locks ~~being~~ will be released one at a time along with each task's executing up to a point that task is ~~done.~~ finished.

16 – 27 (Cancelled)

28. (Currently Amended) A central controlled distributed scalable virtual machine ("CCDSMV") comprising

a central control management station;

system units coupled to said central control management station;

console hosts coupled to said system units;

a network infrastructure coupled to said console hosts;

a set of software modules running on either a control system or on system units to provide control, operate, and management for said CCDSVM via said network infrastructure;

a method of multiple simultaneous concurrent tasks supporting within a single web-console (web-browser) for each user at their web-console; and

a method of organizing system units to form a larger layered system node structure and let middle layer system unit with dual capability of control management and system unit for supporting user more efficiently select target system and run concurrent tasks on target system ; and

a two level security authentication scheme used in said CCDSVM environment, wherein a first level of security authentication is configured to impose on said central control management station, wherein a second level of security authentication is configured to impose on said system units.

29. (Previously Presented) The claim of 28,

wherein said first level of security authentication includes the login authentication having -password checking and allocating a portion of computing resource to said user wherein said second level of authentication includes an allocation a specific number of said system units to said user, for performing specific tasks on permitted said system units in said CCDSVM environment; and
wherein said second level of authentication also includes the authentication of specific services of the specific system unit, which provides web services to specific clients; and wherein said larger layered system node structure having said middle layer system units must have software modules of both control management station and system unit.

30-36 (Cancelled):

37. (Currently Amended) A method for supporting multiple simultaneous concurrent tasks within a single web-console comprises:

providing a group of computer systems having at least one control system, and zero or one or more server systems connected together through a network media, wherein said group of computer systems are controlled, operated, and managed by said control system with a set of software modules running on either a control system or on server systems in said group of systems;

providing multiple users login concurrently each from web-browser of client system into said control system;

providing said users from a single web-browser on a client system to obtain information relating to system configuration and resources of control system;

providing said user from a single web-browser of client systems to select said target systems, which is either a said control system or server systems, and to initiate multiple simultaneous concurrent tasks over the said configuration and resources information on selected target systems;

providing said web console supporting software on control management station gets and stores tasks from each ~~users~~ user on client systems into ~~an~~ a user space task list, and also obtains the associated locks for each ~~tasks~~ task; and

executing tasks arranged by said console supporting software on target systems.